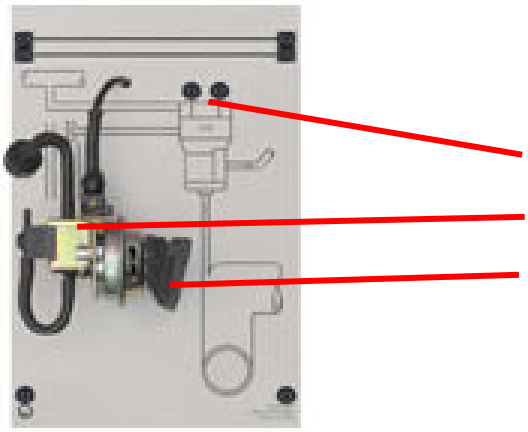
PHYSIK CHEMIE BIOLOGIE TECHNIK

LD DIDACTIC

04/11-W2010-Wei

User manual 739 255

Electrical Exhaust gas recirculation solenoid (EGR) (739 255)



1 Measurement sockets

2 Magnetic solenoid

3 Actuator (EGR)

1 Description

The electrical exhaust gas recirculation solenoid (EGR) is an optional extension of the system LH-Motronic M 1.5.4, **739 402**. It explains the function of this actuator: as a result of exhaust gas, the oxygen content in the air-fuel mixture is reduced, and consequently the combustion temperature in the cylinders lowered. Thus the amount of NO_x is reduced. The EGR valve sets the amount of recirculated exhaust gas.

2 Scope of delivery

Experiment panel Electrical EGR solenoid

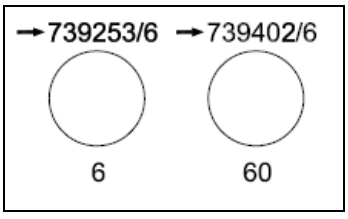
3 Technical data

Voltage	12 V
Nominal current	0.5 A
Frequency	100 Hz
Function	electrical
Aux. power	pneumatic

4 Connection

1. Connect on the rear side of this unit the socket „60“ with socket „6“ on the rear side of the control unit LH-Motronic (M 1.5.4), 739 402.

2. Connect on the rear side of this unit the socket „6“ with socket „6“ on the rear side of the idle controller, 739 253.



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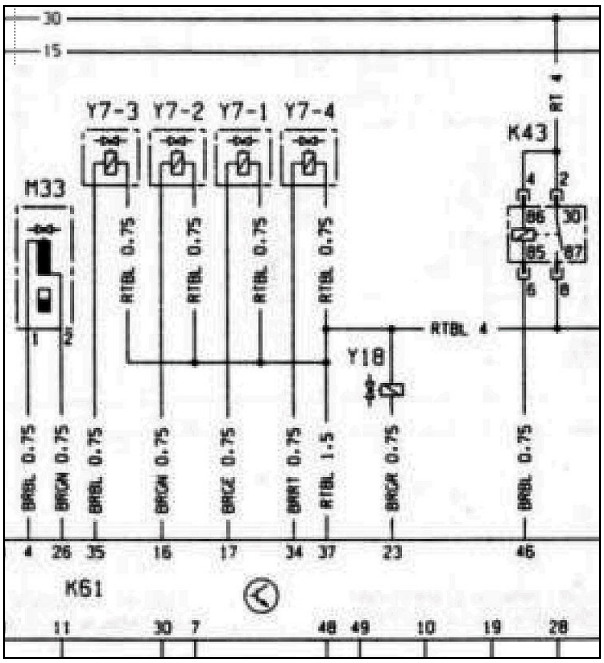
5 DIAGNOSIS

In case of any malfunction of the EGR or the cable between the solenoid and the Motronic ECU a fault code (diagnostic trouble code DTC) is stored in the ECU's memory. To allow the car to be driven to the next workshop the ECU still works with a default value.
The following DTCs can be stored:

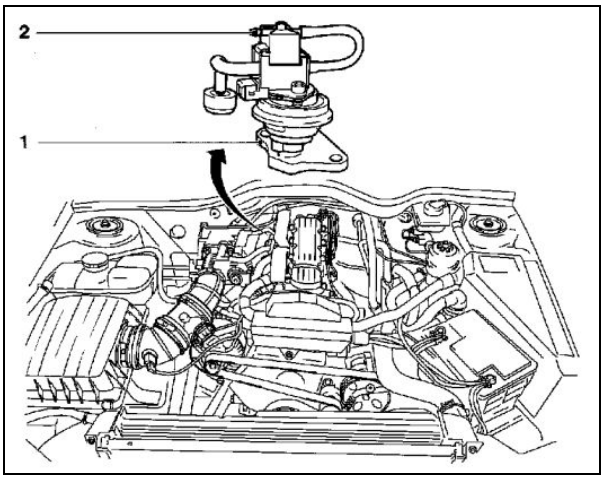
33 EGR valve Voltage too low
34 EGR valve Voltage too high

6 CIRCUIT DIAGRAM EXTRACT



Y18 Exhaust gas recirculation EGR solenoid
K61 Engine control unit

Used in:
Omega B 2.0 GL (04/94 – 09/99)
Motor code: X20SE with Bosch Motronic M 1.5.4



1 EGR with magnetic solenoid
2 Connector for vacuum

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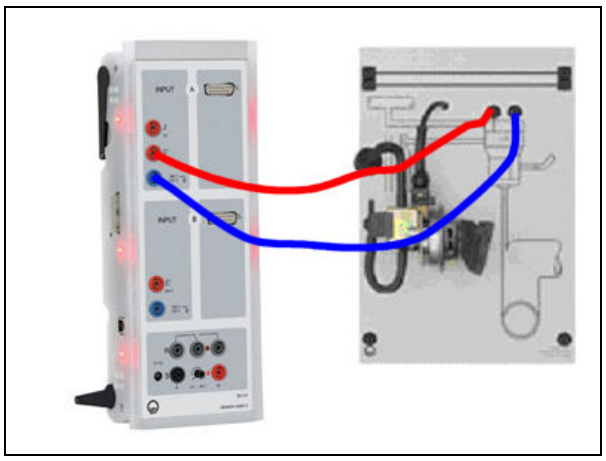
7 SAMPLE APPLICATION

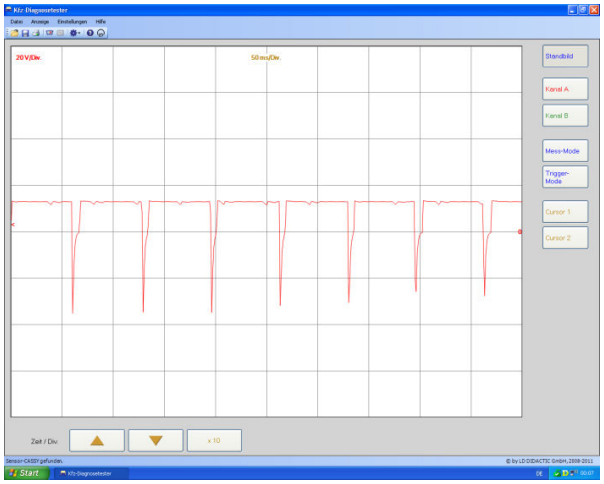
To display the control signal of the EGR in the complete LH-Motronic setup connect the SensorCASSY 2 as follows:



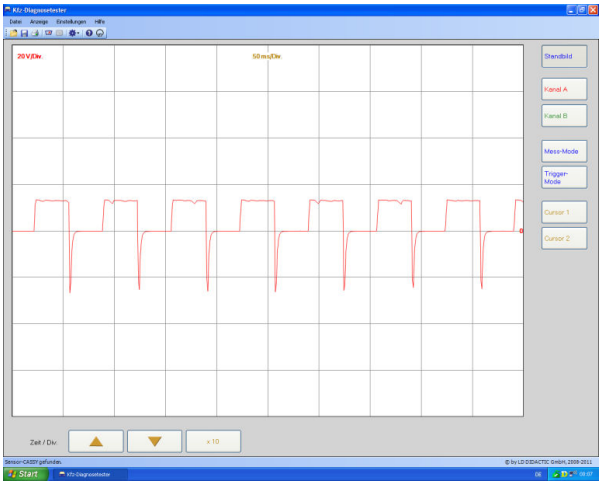
Operate the sytem LH-Motronic (M1.5.4) with the following settings:

Speed	~ 1500 rpm
Load	position 4
Air mass	40 kg/h
Engine temperature	80° C
Lambda	1 V const.

Run the program Automotive diagnosis tester 739 589 and select the mode „Oscilloscope“.



Change the air mass to 30 kg/h and repeat the measurement!



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